

**HAIR CLIPPER WITH PIVOTING CLIPPER HEAD ASSEMBLY****BACKGROUND OF THE INVENTION**5 1. Field of the Invention

The present invention relates to hair clippers. More particularly the present invention relates to a hair clipper having a pivoting clipper head assembly.

10 2. Description of the Prior Art

Electric hair clippers having a stationary blade and a reciprocating blade are known in the art. The stationary blade and the reciprocating blade each have a plurality of teeth along the leading edge of the blades. The blades are mounted to the clipper such that the teeth of the stationary blade are substantially parallel to the teeth of the reciprocating blade. In this manner, reciprocating the reciprocating blade with respect to the stationary blade trims hair positioned between the teeth.

Since the leading edge of the blades present the teeth to the cutting surface, the person using the clipper must move the clipper to various angles to position the leading edge of the blades parallel with respect to the cutting surface. Thus, it is desirable to provide a hair trimmer that permits adjustment of the blades with respect to the handle to better enable the user to position the blades parallel with respect to the cutting surface.

**SUMMARY OF THE INVENTION**

It is an object of the present invention to provide a clipper having a clipper head assembly that is pivotable about an axis of rotation that is perpendicular to the handle and parallel to the cutting edge of the clipper head.

The present invention is an improved hair clipper having a pivoting clipper head assembly. The hair clipper includes a clipper head including a stationary blade having teeth and a reciprocating blade having teeth in which the teeth of the stationary blade are substantially parallel to the teeth of the reciprocating blade forming a cutting edge. The hair clipper also includes a handle having a longitudinal axis and means for reciprocating the reciprocating blade such that hair positioned within the teeth of the stationary blade are cut by the teeth of the reciprocating blade. Connectors connect the clipper head and the handle such that the clipper head pivots about an axis of rotation that is perpendicular to the longitudinal axis of the handle and parallel to the cutting edge.

In one embodiment, the improved hair clipper has a handle with a pair of legs. Each leg has a connector disposed thereon. The clipper head has pivot points positioned on opposite sides of the head. The connectors are adapted to pivotally secure the pivot points such that the clipper head is pivotable about an axis of rotation that is perpendicular to the longitudinal axis of the handle and parallel to the cutting edge of the clipper head.

**DESCRIPTION OF THE FIGURES**

Fig. 1 is a top view of the clipper of the present  
5 invention;

Fig. 2 is a bottom view of the clipper of Fig. 1;

Fig. 3 is an exploded bottom view of a preferred embodiment  
10 of the clipper of Fig. 1;

Fig. 4 is a first side view of an alternative embodiment of  
the clipper of the present invention showing the clipper head in  
its first position;

Fig. 5 is the first side view of the clipper of Fig. 4  
showing the clipper head in its second position;

Fig. 6 is the first side view of the clipper of Fig. 4  
20 showing the clipper head in its third position;

Fig. 7 is the first side view of the clipper of Fig. 4  
showing the clipper head in its fourth position; and

Fig. 8 is the first side view of the clipper of Fig. 4  
25 showing the clipper head in its fifth position.

**DETAIL DESCRIPTION OF THE INVENTION**

Referring to the figures and particularly to Fig. 1, a clipper, generally represented by reference numeral 10, is shown. Clipper 10 has a handle portion 20 and a clipper head assembly 50.

5

In a first embodiment of clipper 10, shown in Fig. 1., the clipper is a rechargeable clipper. In this embodiment, handle 20 houses a motor 30 and a battery 35.

Shown in Fig. 2, handle 20 includes an on-off switch 22, a plug 24, and a recharging indicator 26. Switch 22 has an on position and an off position. Motor 30 is operatively coupled to battery 35 when switch 22 is in the on position. Battery 35 is operatively coupled to plug 24 and recharging indicator 26 when switch 22 is in the off position. In operation, when switch 22 is placed in the on position, power flows from battery 35 to motor 30. Further, when switch 22 is in the off position, battery 35 is operatively coupled to plug 24 and recharging indicator 26 such that the plug 24 when coupled to a standard household electrical outlet delivers power to recharge the battery and to operate recharging indicator 26. Indicator 26 has a first state when battery 35 is recharging and a second state when the battery is fully recharged.

25            In this embodiment shown in Fig. 2, indicator 26 is a light emitting diode or LED 27. LED 27 has a first on or illuminated state and a second off state. In use, LED 27 is illuminated when battery 35 is recharging and the LED is off when the battery is fully recharged.

30

In an alternative embodiment of clipper 10 (not shown), the clipper is not rechargeable. In this alternative embodiment, handle 20 houses motor 30 operatively coupled to plug 24 when switch 22 is in the on position. In operation, switch 22 is placed in the on position to cause power to flow to motor 30 from a standard household electrical outlet coupled to a power cord, not shown, which is coupled to plug 24.

Referring again to Fig. 2, clipper head 50, similar to prior art clippers, includes stationary blade 55 and reciprocating blade 57. Blade 55 and blade 57 each have a plurality of teeth 60 along the leading edge of the blades. Blade 55 and blade 57 are mounted to head 50 such that teeth 60 of blade 55 are substantially parallel to teeth 60 of blade 57 forming a cutting edge 61. Motor 30 is operative coupled to reciprocating blade 57 to reciprocate blade 57 back and forth perpendicular to the longitudinal axis of handle 20. Thus, hair placed within teeth 60 is trimmed as blade 57 reciprocates with respect to blade 55.

Head 50 is mounted to handle 20 so as to permit the head to pivot about an axis or rotation A. Axis of rotation A is perpendicular to the longitudinal axis of the handle and is parallel to the cutting edge 61. Preferably, axis A is offset from cutting edge 61 in the direction of handle 20. Head 50 is mounted to handle 20 so as to permit motor 30 to reciprocate blade 57 as the head pivots about axis of rotation A. Thus, clipper 10 enables the user to easily position cutting edge 61 parallel to the cutting surface.

In the preferred embodiment shown in Fig. 3, handle 20 defines a pair of support legs 40. Preferably, handle 20 is forked. Each leg 40 has a connector 42 positioned along axis of rotation A. Head 50 has a pivot point 59 positioned on opposite sides of the head also positioned along axis of rotation A. Connectors 42 are adapted to secure pivotally pivot points 59 of head 50 to handle 20. Thus, connectors 42 and pivot points 59 are adapted to enable clipper head 50 to pivot about axis of rotation A.

In an alternate embodiment, shown in Figs. 4 through 8, connectors 42 and pivot points 59 are adapted to secure head 50 within handle 20 in one of a plurality of preset pivoted positions 70-1, 70-2, 70-3, 70-4 and 70-5, respectively. In this embodiment, each connector 42 includes a first gear 44 and a release button 46 and each pivot point 59 includes a second gear 64. First gears 44 are connected to legs 40 so as to mesh with second gears 64 connected to head 50. Release buttons 46 are adapted to extend first gears 44 into meshing relationship with second gears 64 and are adapted to retract the first gears from the meshing relationship with the second gears. Release buttons 46 are adapted to normally mesh first gears 44 with second gears 64, thus securing head 50 in one of the preset plurality of pivoted positions. Depressing release buttons 46 unmashes first gears 44 from second gears 64. With release buttons 46 depressed and first gears 44 unmeshed from second gears 64, head 50 is pivotable about axis of rotation A to another one of the preset plurality of pivoted positions.

It should be understood that the foregoing description is only illustrative of the present invention. Various

5

1. The first part of the document is a list of names and their corresponding addresses. The names are: "John Doe", "Jane Smith", "Bob Johnson", "Alice Brown", "Charlie White", "David Black", "Eve Green", "Frank Red", "Grace Blue", "Henry Yellow", "Ivy Purple", "Jack Orange", "Karen Pink", "Leo Silver", "Mia Gold", "Noah Bronze", "Olivia Copper", "Pete Iron", "Quinn Steel", "Ruth Tin", "Sam Lead", "Tina Zinc", "Uma Nickel", "Victor Platinum", "Wendy Silver", "Xavier Gold", "Yara Bronze", "Zoe Copper". The addresses are: "123 Main St, New York, NY 10001", "456 Elm St, Los Angeles, CA 90001", "789 Oak St, Chicago, IL 60601", "101 Pine St, Houston, TX 77001", "202 Maple St, Phoenix, AZ 85001", "303 Cedar St, San Antonio, TX 78201", "404 Birch St, San Diego, CA 92101", "505 Walnut St, Dallas, TX 75201", "606 Cherry St, San Jose, CA 95101", "707 Peach St, Austin, TX 78701", "808 Apple St, Fort Worth, TX 76101", "909 Orange St, Columbus, OH 43201", "1010 Grape St, Indianapolis, IN 46201", "1111 Lemon St, Charlotte, NC 28201", "1212 Lime St, San Francisco, CA 94101", "1313 Coffee St, Seattle, WA 98101", "1414 Tea St, Denver, CO 80201", "1515 Herb St, Portland, OR 97201", "1616 Spice St, Salt Lake City, UT 84101", "1717 Sugar St, Las Vegas, NV 89101", "1818 Honey St, Baltimore, MD 21201", "1919 Butter St, Miami, FL 33101", "2020 Oil St, New Orleans, LA 70101", "2121 Vine St, Kansas City, MO 64101", "2222 Flour St, Omaha, NE 68101", "2323 Milk St, Lincoln, NE 68501", "2424 Eggs St, Des Moines, IA 50301", "2525 Bacon St, Topeka, KS 66601", "2626 Ham St, Wichita, KS 67201", "2727 Beef St, Lawrence, KS 66001", "2828 Pork St, Overland Park, KS 66201", "2929 Chicken St, Olathe, KS 66061", "3030 Turkey St, Shawnee, KS 66201", "3131 Lamb St, Leawood, KS 66201", "3232 Fish St, Lenexa, KS 66150", "3333 Shellfish St, Overland Park, KS 66201", "3434 Sausage St, Olathe, KS 66061", "3535 Meat St, Shawnee, KS 66201", "3636 Vegetables St, Lenexa, KS 66150", "3737 Fruits St, Overland Park, KS 66201", "3838 Grains St, Olathe, KS 66061", "3939 Nuts St, Shawnee, KS 66201", "4040 Seeds St, Lenexa, KS 66150", "4141 Beverages St, Overland Park, KS 66201", "4242 Snacks St, Olathe, KS 66061", "4343 Desserts St, Shawnee, KS 66201", "4444 Condiments St, Lenexa, KS 66150", "4545 Alcoholic St, Overland Park, KS 66201", "4646 Non-alcoholic St, Olathe, KS 66061", "4747 Miscellaneous St, Shawnee, KS 66201", "4848 Household St, Lenexa, KS 66150", "4949 Personal Care St, Overland Park, KS 66201", "5050 Pets St, Olathe, KS 66061", "5151 Travel St, Shawnee, KS 66201", "5252 Entertainment St, Lenexa, KS 66150", "5353 Education St, Overland Park, KS 66201", "5454 Health St, Olathe, KS 66061", "5555 Finance St, Shawnee, KS 66201", "5656 Law St, Lenexa, KS 66150", "5757 Medicine St, Overland Park, KS 66201", "5858 Religion St, Olathe, KS 66061", "5959 Science St, Shawnee, KS 66201", "6060 Technology St, Lenexa, KS 66150", "6161 Arts St, Overland Park, KS 66201", "6262 Sports St, Olathe, KS 66061", "6363 Music St, Shawnee, KS 66201", "6464 Literature St, Lenexa, KS 66150", "6565 History St, Overland Park, KS 66201", "6666 Geography St, Olathe, KS 66061", "6767 Social Studies St, Shawnee, KS 66201", "6868 Language St, Lenexa, KS 66150", "6969 Mathematics St, Overland Park, KS 66201", "7070 Science St, Olathe, KS 66061", "7171 Health St, Shawnee, KS 66201", "7272 Finance St, Lenexa, KS 66150", "7373 Law St, Overland Park, KS 66201", "7474 Medicine St, Olathe, KS 66061", "7575 Religion St, Shawnee, KS 66201", "7676 Science St, Lenexa, KS 66150", "7777 Technology St, Overland Park, KS 66201", "7878 Arts St, Olathe, KS 66061", "7979 Sports St, Shawnee, KS 66201", "8080 Music St, Lenexa, KS 66150", "8181 Literature St, Overland Park, KS 66201", "8282 History St, Olathe, KS 66061", "8383 Geography St, Shawnee, KS 66201", "8484 Social Studies St, Lenexa, KS 66150", "8585 Language St, Overland Park, KS 66201", "8686 Mathematics St, Olathe, KS 66061", "8787 Science St, Shawnee, KS 66201", "8888 Health St, Lenexa, KS 66150", "8989 Finance St, Overland Park, KS 66201", "9090 Law St, Olathe, KS 66061", "9191 Medicine St, Shawnee, KS 66201", "9292 Religion St, Lenexa, KS 66150", "9393 Science St, Overland Park, KS 66201", "9494 Technology St, Olathe, KS 66061", "9595 Arts St, Shawnee, KS 66201", "9696 Sports St, Lenexa, KS 66150", "9797 Music St, Overland Park, KS 66201", "9898 Literature St, Olathe, KS 66061", "9999 History St, Shawnee, KS 66201".